Title (en)

Data driving circuit, organic light emitting diode display using the same, and method of driving the organic light emitting diode display

Title (de)

Datentreiberschaltung, organische lichtemittierende Diodenanzeige damit und Verfahren zur Ansteuerung der organischen lichtemittierenden Diodenanzeige

Title (fr)

Circuit de commande de données, affichage à diodes électroluminescentes organiques l'utilisant, et procédé de commande de l'affichage à diodes électroluminescentes organiques

Publication

EP 1750246 A3 20071031 (EN)

Application

EP 06254021 A 20060801

Priority

KR 20050070440 A 20050801

Abstract (en)

[origin: EP1750246A2] A data driving circuit for driving pixels of a light emitting display to display images with uniform brightness may include a current sink that is capable of receiving, via a data line, a predetermined current from a pixel to enable the data driving circuit to generate a compensation voltage for the pixel. The compensation voltage may compensate for variations among the pixels of the display. Variations among the pixels may result from different electron mobilities and/or threshold voltages of transistors included in the pixels. The value of the predetermined current may be equal to or higher than a value of a minimum current employable by the pixel to emit light of maximum brightness. The maximum brightness of the pixel may correspond to a brightness emitted by the pixel when a highest one of a plurality of set gray scale voltages is applied to the pixel.

IPC 8 full level

G09G 3/32 (2006.01); **H05B 44/00** (2022.01)

CPC (source: EP KR US)

G09G 3/30 (2013.01 - KR); **G09G 3/3233** (2013.01 - EP US); **G09G 3/3291** (2013.01 - EP US); G09G 2300/0819 (2013.01 - EP US); G09G 2300/0852 (2013.01 - EP US); G09G 2300/0861 (2013.01 - EP US); G09G 2310/027 (2013.01 - EP US); G09G 2310/0275 (2013.01 - EP US); G09G 2320/0295 (2013.01 - EP US); G09G 2320/043 (2013.01 - EP US)

Citation (search report)

- [PX] EP 1675093 A1 20060628 - SAMSUNG SDI CO LTD [KR]
- [A] HAI-JUNG IN ET AL: "A Novel Voltage-Programming Pixel with Current-Correction Method for Large-Size and High-Resolution AMOLEDs on Poly-Si Backplane", INTERNATIONAL MEETING ON INFORMATION DISPLAY, XX, XX, no. 286, 23 July 2005 (2005-07-23), pages 901 - 904, XP002405123
- [A] MATSUEDA Y ET AL: "6-BIT AMOLED WITH RGB ADJUSTABLE GAMMA COMPENSATION LTPS TFT CIRCUIT", 2005 SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS. BOSTON ,MA, MAY 24 - 27, 2005, SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS, SAN JOSE, CA : SID, US, vol. BOOK II VOL. 36, 2005, pages 1352 - 1355, XP001244365

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EP1968038A1; US8659511B2; US9812065B2; US10192491B2; US8334825B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1750246 A2 20070207; **EP 1750246 A3 20071031**; **EP 1750246 B1 20150624**; CN 100481181 C 20090422; CN 1909041 A 20070207; JP 2007041586 A 20070215; JP 4790526 B2 20111012; KR 100703500 B1 20070403; KR 20070015829 A 20070206; US 2007024543 A1 20070201; US 7911427 B2 20110322

DOCDB simple family (application)

EP 06254021 A 20060801; CN 200610108992 A 20060731; JP 2006197262 A 20060719; KR 20050070440 A 20050801; US 49191106 A 20060725